# B&V WASTE SCIENCE AND TECHNOLOGY CORP.

A Black & Veatch Company

101 North Wacker Drive, Suite 1100, Chicago, Illinois 60606, (312) 346-3775, Fax: (312) 346-4781



EPA Region 5 Records Ctr.

330742


USEPA/ARCS V
SSI Group 3 - 29-5JZZ

BVWST Project 70970.104
BVWST File C.3
September 24, 1993

Mr. Alan Altur
Work Assignment Manager
U.S. Environmental Protection Agency
77 West Jackson Boulevard (HSMA-5J)
Chicago, Illinois 60604

Subject: Forrest Public Well #3
ILD 981 960 818
Site Evaluation Accomplished

Dear Mr. Altur:

Enclosed is the revised packet recommending the Forrest Public Well #3 be designated as site evaluation accomplished (SEA). The revised packet adds a site location map and discussion regarding two nearby potential sources to the original SEA recommendation packet transmitted to you on September 2, 1993. Because of these additions, the entire packet has been reproduced and transmitted to you. Please replace the September 2, 1993, version with the enclosed version.

If you have any questions, please feel free to call me at (312) 346-3775.

Sincerely,

B&V WASTE SCIENCE AND TECHNOLOGY CORP.

Richard M. McAvoy

Richard M. McAvoy

Enclosure

cc: T. Crause/IEPA

L2/FPW#3

# Site Evaluation Accomplished
# Forrest Public Well #3
# USEPA ILD No.: ILD 981 960 818

Forrest Public Well #3 (Well #3) was listed in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) in 1987. The CERCLIS listing occurred after the Illinois Environmental Protection Agency (IEPA) sampled Well #3 on July 1, 1987. Analysis of the samples revealed the presence of two insecticides: alpha chlordane and gamma chlordane [0.01 parts per billion (ppb) and 0.013 ppb, respectively] in the groundwater. Levels of contamination were well below the state standard of 2 ppb for chlordane in Class 1 groundwater. Figure 1 shows the location of Forrest Public Well No's. 1, 2, and 3, and two nearby potential sources of hazardous substances.

The IEPA completed a preliminary assessment report for Well #3 on April 26, 1988. The IEPA calculated Preliminary and Projected Hazardous Ranking System scores of 37.5 and 33.62, respectively. A high priority ranking was assigned, based on the detection of chlordane in a public water supply.

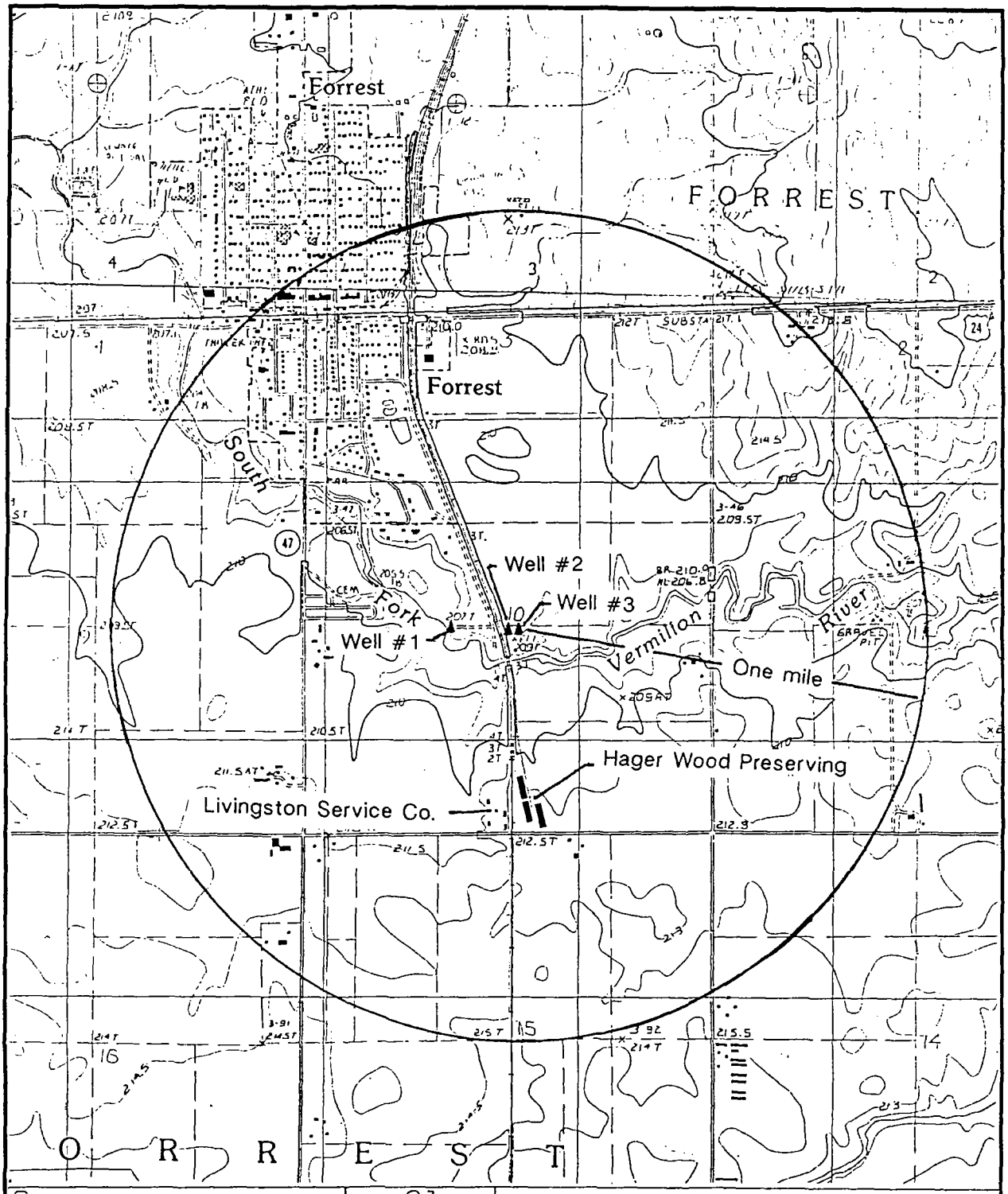
In July 1993, B&V Waste Science and Technology Corp. began gathering background data for the Well #3 screening site inspection (SSI). At this time, it was discovered that on August 16, 1989, Well #3 was sealed and abandoned in accordance with the Illinois Department of Public Health well sealing standards. A completed water well sealing form for Well #3 is attached. Mr. Fred Gerth of the IEPA in Champaign, oversaw this process. Well #2 was also sealed and abandoned at the same time. Wells #1 and #4 are in use. A representative from the Village of Forrest, Mr. Rick Hardesty, stated there have been no problems with these wells. No reconnaissance visit was performed and site photographs were not produced in this site inspection.

Analytical results from sampling events subsequent to the July 1, 1987, are attached. Sampling results for chlordane are indicated by an asterisk (*). Subsequent quarterly sampling of Well #3 failed to detect any synthetic organic pesticides. No potential sources of chlordane are known to exist within 1,000 feet of Well #3.

Two nearby potential sources are located approximately two thousand feet south of Well #3. Both sites are shown on Figure 1. One, Hager Wood Preserving (CERCLIS ID No. ILD 980 994 768), is the subject of a July 1992, IEPA SSI. The

Hager Wood Preserving SSI report concludes the groundwater pathway does not appear to be affected by the site at this time. A second potential source site, Livingston Service Co. (Livingston), is just west of the railroad tracks bordering the west side of the Hager Wood Preserving site. Livingston is an agrochemical dealer. The exact type of agrochemicals distributed by Livingston was not determined in this SSI. A second agribusiness, Prairie F.S. Feedmill, appears to located on the same site with Livingston.

Well #3 was not the source for contaminants discovered in 1987, and can not be scored through the current system of evaluation. Post 1987 groundwater sampling from Well #3 failed to detect the contaminants found in 1987. Well #3 has been properly sealed and abandoned, and is no longer used as a source of drinking water. Therefore, a site evaluation accomplished rating is recommended for Forrest Public Well #3.




Source:
United States Geological Survey, Topographic maps, Forrest South (1986) & Forrest North (1983), IL, 7.5 minute series.

Scale:
1 inch = 2,000 feet

N

Figure 1
Site Location Map

Forrest Public Well #3
Forrest, Illinois

B&V Waste Science and Technology Corp.

Site Evaluation Accomplished

for the

Screening Site Inspection

of

Forrest Public Well #3

USEPA ID NO. ILD 981 960 818

BVWST PROJECT NO. 70970.104

For B&V Waste Science and Technology Corp.

Recommended by: John P. Chitwood for R. McAvoy Date: 9/24/93

For U.S. Environmental Protection Agency, Region V

Approved by: _____ Date: _____
Work Assignment Manager

For Illinois Environmental Protection Agency

Approved by: _____ Date: _____
Division of Land Pollution Control

WATER WELL SEALING FORM

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH
525 WEST JEFFERSON STREET
SPRINGFIELD, ILLINOIS 62761

RETURN ALL COPIES TO IDPH

TYPE OR PRESS FIRMLY

This form shall be submitted to this Department not more than 30 days after a potable water well, boring or monitoring well is sealed. Such wells are to be sealed not more than 30 days after they are abandoned in accordance with the sealing requirements in the Water Well Construction Code.

1. Ownership (Name of Controlling Party) VILLAGE OF FORREST

2. Well Location: Forrest, Illinois (Address - Lot Number) Livingston County (City) (County)

General Description: Section 10 Township 26N (N)(S) Range 7E (E)(W) SE¼ Quarter of the ~~NW~~ Quarter of the ~~NW~~ Quarter SE

3. Year Drilled [illegible]

4. Drilling Permit No.(and date, if known)

5. Type of Well: Bored ____ Drilled X Other ____

6. Total Depth ~~102~~ [illegible] Diameter (inches) 12

7 Formation clear of obstruction X yes ____ no

8. DETAILS OF PLUGGING

Filled with Chlorine & Cement (cement or other materials) from 0 to ~~102~~ ft.

Kind of plug Cement from ____ to ____ ft.

Filled with ____ from ____ to ____ ft.

Kind of plug ____ from ____ to ____ ft.

Filled with ____ from ____ to ____ ft.

Kind of plug ____ from ____ to ____ ft.

9. CASING RECORD
Upper 3 feet of casing removed X Yes ____ No

If well casing consists of brick, stone, concrete blocks, porous tile, or other porous material, casing was removed to a depth of 10 feet below the surface ____ Yes ____ No.

10. Date well was sealed: Month August Day 16 Year 1989.

11. Licensed water well driller or other person approved by the Department performing well sealing:

S. Dean ALbrecht (Name) 102-001203 (Complete License Number)

R.R.#1 (Address) Ohio (City) IL 61349 (State/Zip)

RECEIVED AUG 23 1989 DIVISION OF ENVIRONMENTAL

8/88

This State Agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of this information is mandatory. This form has been approved by the Forms Management Center.

IL 482-0631

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

DIVISION OF PUBLIC WATER SUPPLIES

Inventory Sheet

Date Inventoried 10/31/90

Supply: FORREST

Sheet 3 of 18

Item: Well #3

This gravel packed, drift well was originally drilled for the Wabash Railroad in ~~1926~~ and was acquired by the Village in 1961. The well is located on the southeast corner of town. This is the east well of the two wells which are on the east side of the railroad track. The well is approximately 138 ft. east of Well #2. Map coordinates are approximately 2,650 ft. S and 2,335 ft. W from the NE corner of Section 10, T26N, R7E. This well was sealed and abandoned on 8/16/89 according to the IDPH Water Well Sealing Form.

FACILITY: 1050450 FORREST *** CONTINUED ***

| | | | | | | |
|---|---|---|---|---|---|---|
| 418WN00 | 007 | 81403 | DURSBAN UG/L | UG/L | 0.050 | < |
| 418WN00 | 008 | 39530 | MALATHION UG/L | UG/L | 0.050 | < |
| 418WN00 | 009 | 39398 | ETHION UG/L | UG/L | 0.050 | < |
| 418WN00 | 010 | 81284 | TREFLAN UG/L | UG/L | 0.010 | < |
| 418WN00 | 011 | 39630 | ATRAZINE (AATREX) UG/L | UG/L | 0.050 | < |
| 418WN00 | 012 | 77825 | ALACHLOR UG/L | UG/L | 0.020 | < |
| 418WN00 | 013 | 39356 | METOLACHLOR (DUAL) UG/L | UG/L | 0.100 | < |
| 418WN00 | 014 | 81757 | CYANAZINE UG/L | UG/L | 0.050 | < |

SAMPLE NO: 086605100 LOCATION: FORREST/WELL 3 COLL DATE: 07/07/88 DELIVERED BY: MAIL
SMPL TYPE: RAW COLLECTOR: D GREEAR LAB RCVD: 07/08/88 RECEIVED BY: MSB
SMPL PURP: 9-VARIANCE COMMENTS: GROUNDWATER PESTICIDE LAB COMPL: 07/19/89 LAB SUPERVISOR: JTH
SMPL PROG: B-GWM PEST OBSRVATNS: 2 QTS SMPL PERIOD: 07/88 FUND CODE: PW30

| ANALYSIS ID | RSLT NO | STORET NO | DESCRIPTION | UNITS | RESULT | | STANDARDS DRINK WTR | STANDARDS RAW WTR | TRIGGER LEVEL |
|---|---|---|---|---|---|---|---|---|---|
| 412WA00 | 001 | 39340 | LINDANE UG/L | UG/L | 0.010 | < | 4.000 | | |
| 412WA00 | 002 | 39410 | HEPTACHLOR UG/L | UG/L | 0.010 | < | 0.100 | | |
| 412WA00 | 003 | 39330 | ALDRIN UG/L | UG/L | 0.010 | < | 1.000 | | |
| 412WA00 | 004 | 39420 | HEPTACHLOR EPOXIDE UG/L | UG/L | 0.010 | < | 0.100 | | |
| 412WA00 | 005 | 39348 | ALPHA CHLORDANE UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | 006 | 39810 | GAMMA CHLORDANE UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | 007 | 39380 | DIELDRIN UG/L | UG/L | 0.010 | < | 1.000 | | |
| 412WA00 | 008 | 39390 | ENDRIN UG/L | UG/L | 0.010 | < | 0.200 | | |
| 412WA00 | 009 | 39480 | METHOXYCHLOR UG/L | UG/L | 0.050 | < | 100.000 | | |
| 412WA00 | 010 | 39327 | O,P'-DDE UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | 011 | 39320 | P,P'-DDE UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | 012 | 39315 | O,P'-DDD UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | 013 | 39310 | P,P'-DDD UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | 014 | 39305 | O,P'-DDT UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | 015 | 39300 | P,P'-DDT UG/L | UG/L | 0.010 | < | | | |
| 412WA00 | | 39370 | TOTAL DDT UG/L | | 0.000 | | 50.000 | | |
| 412WP00 | 001 | 39516 | TOTAL PCB'S UG/L | UG/L | 0.100 | < | | | |
| 412WT00 | 001 | 39400 | TOXAPHENE UG/L | UG/L | 1.000 | < | 5.000 | | |
| 418WC00 | 001 | 39032 | PENTACHLOROPHENOL | UG/L | 0.010 | < | | | |
| 418WH00 | 001 | 39730 | 2,4-D UG/L | UG/L | 0.100 | < | 10.000 | | |
| 418WH00 | 002 | 39760 | SILVEX UG/L | UG/L | 0.050 | < | 10.000 | | |
| 418WN00 | 001 | 46313 | PHORATE UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 002 | 39570 | DIAZINON UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 003 | 39357 | RONNEL UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 004 | 39600 | METHYL PARATHION UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 005 | 82098 | TERBUFOS (COUNTER) UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 006 | 81294 | DYFONATE UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 007 | 81403 | DURSBAN UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 008 | 39530 | MALATHION UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 009 | 39398 | ETHION UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 010 | 81284 | TREFLAN UG/L | UG/L | 0.010 | < | | | |
| 418WN00 | 011 | 39630 | ATRAZINE (AATREX) UG/L | UG/L | 0.050 | < | | | |
| 418WN00 | 012 | 77825 | ALACHLOR UG/L | UG/L | 0.020 | < | | | |

FACILITY: 1050450 FORREST *** CONTINUED ***

| | | | |
|---|---|---|---|
| 01051 | LEAD,TOTAL RECOVERABLE UG/L AS PB | 5.000 < | 50.000 |
| 01055 | MANGANESE,TOTAL RECOVERABLE UG/L AS MN ANAL BY ICP | 46.000 | 150.000 |
| 01067 | NICKEL,TOTAL RECOVERABLE UG/L AS NI ANAL BY ICP | 3.000 < | |
| 01077 | SILVER,TOTAL RECOVERABLE UG/L AS AG ANAL BY ICP | 5.000 < | 50.000 |
| 01082 | STRONTIUM,TOTAL RECOVERABLE UG/L AS SR ANAL BY ICP | 680.000 | |
| 01087 | VANADIUM,TOTAL RECOVERABLE UG/L ASV ANAL BY ICP | 4.000 < | |
| 01092 | ZINC,TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP | 2.000 < | 5000.000 |
| 01147 | SELENIUM,TOTAL RECOVERABLE UG/L ASSE | 1.000 < | 10.000 |
| 70300 | RESIDUE,TOTAL FILTERABLE @180 C,MG/L | 521.000 | |
| 70304 | TOTAL DISSOLVED SOLIDS MG/L BY EC | 580.000 | |
| 71900 | MERCURY,TOTAL UG/L AS HG | 0.050 < | 2.000 |

FACILITY: 1050450 FORREST STATUS: A PUBLIC: Y COMM: Y TYPE WATER: G
TAP: 01 PLANT ON SOUTH WILLIAMS ST EAST OF RT 47 STATUS: A
RAW SRCE: 47507 WELL 3 EAST OF 2 WELLS EAST OF RR TRACKS STATUS: A

SAMPLE NO: DB6880700 LOCATION: FORREST/WELL 3 COLL DATE: 11/07/88 DELIVERED BY: MA
SMPL TYPE: RAW COLLECTOR: D GREEAR LAB RCVD: 11/09/88 RECEIVED BY: D
SMPL PURP: 9-VARIANCE COMMENTS: GROUNDWATER PESTICIDE LAB COMPL: 11/29/88 LAB SUPERVISOR: JT
SMPL PROG: R-GWM PEST OBSRVATNS: 2 QTS WATER SMPL PERIOD: 11/88 FUND CODE: PU

| ANALYSIS ID | RSLT NO | STORET NO | DESCRIPTION | UNITS | RESULT | STANDARDS DRINK WTR | STANDARDS RAW WTR | TRIGGI LEVEI |
|---|---|---|---|---|---|---|---|---|
| 412WA00 | 001 | 39340 | LINDANE UG/L | UG/L | 0.010 < | 4.000 | | |
| 412WA00 | 002 | 39410 | HEPTACHLOR UG/L | UG/L | 0.010 < | 0.100 | | |
| 412WA00 | 003 | 39330 | ALDRIN UG/L | UG/L | 0.010 < | 1.000 | | |
| 412WA00 | 004 | 39420 | HEPTACHLOR EPOXIDE UG/L | UG/L | 0.010 < | 0.100 | | |
| 412WA00 | 005 | 39340 | *ALPHA CHLORDANE UG/L | UG/L | 0.010 < | | | |
| 412WA00 | 006 | 39910 | *GAMMA CHLORDANE UG/L | UG/L | 0.010 < | | | |
| 412WA00 | 007 | 39390 | DIELDRIN UG/L | UG/L | 0.010 < | 1.000 | | |
| 412WA00 | 008 | 39390 | ENDRIN UG/L | UG/L | 0.010 < | 0.200 | | |
| 412WA00 | 009 | 39480 | METHOXYCHLOR UG/L | UG/L | 0.050 < | 100.000 | | |
| 412WA00 | 010 | 39327 | O,P'-DDE UG/L | UG/L | 0.010 < | | | |
| 412WA00 | 011 | 39320 | P,P'-DDE UG/L | UG/L | 0.010 < | | | |
| 412WA00 | 012 | 39315 | O,P'-DDD UG/L | UG/L | 0.010 < | | | |
| 412WA00 | 013 | 39310 | P,P'-DDD UG/L | UG/L | 0.010 < | | | |
| 412WA00 | 014 | 39305 | O,P'-DDT UG/L | UG/L | 0.010 < | | | |
| 412WA00 | 015 | 39300 | P,P'-DDT UG/L | UG/L | 0.010 < | | | |
| 412WA00 | | 39370 | TOTAL DDT UG/L | | 0.000 | 50.000 | | |
| 412WP00 | 001 | 39516 | TOTAL PCB'S UG/L | UG/L | 0.100 < | | | |
| 412WT00 | 001 | 39400 | TOXAPHENE UG/L | UG/L | 1.000 < | 5.000 | | |
| 418WH00 | 001 | 39730 | 2,4-D UG/L | UG/L | 0.100 < | 10.000 | | |
| 418WH00 | 002 | 39760 | SILVEX UG/L | UG/L | 0.050 < | 10.000 | | |
| 418WN00 | 001 | 46313 | PHORATE UG/L | UG/L | 0.050 < | | | |
| 418WN00 | 002 | 39570 | DIAZINON UG/L | UG/L | 0.050 < | | | |
| 418WN00 | 003 | 39357 | RONNEL UG/L | UG/L | 0.050 < | | | |
| 418WN00 | 004 | 39600 | METHYL PARATHION UG/L | UG/L | 0.050 < | | | |
| 418WN00 | 005 | 82098 | TERBUFOS (COUNTER) UG/L | UG/L | 0.050 < | | | |
| 418WN00 | 006 | 01294 | DYFONATE UG/L | UG/L | 0.050 < | | | |

ACILITY: 1050450 FORREST

*** CONTINUED ***

SMPL PROG: B-GWN : LST OBSRVATNS: SMPL PERIOD: 03/86 FUND CODE:

| ANALYSIS ID | RSLT NO | STORET NO | DESCRIPTION | UNITS | RESULT | STANDARDS DRINK WTR | STANDARDS RAW WTR | TRIGGER LEVEL |
|---|---|---|---|---|---|---|---|---|
| 0000001 | 001 | 39023 | PHORATE UG/L | | 0.050 < | | | |
| 0000001 | 002 | 39300 | P,P'-DDT UG/L | | 0.010 < | | | |
| 0000001 | 003 | 39305 | O,P'-DDT UG/L | | 0.010 < | | | |
| 0000001 | 004 | 39310 | P,P'-DDD UG/L | | 0.010 < | | | |
| 0000001 | 005 | 39315 | O,P'-DDD UG/L | | 0.010 < | | | |
| 0000001 | 006 | 39320 | P,P'-DDE UG/L | | 0.010 < | | | |
| 0000001 | 007 | 39327 | O,P'-DDE UG/L | | 0.010 < | | | |
| 0000001 | 008 | 39330 | ALDRIN UG/L | | 0.010 < | 1.000 | | |
| 0000001 | 009 | 39340 | LINDANE UG/L | | 0.010 < | 4.000 | | |
| 0000001 | 010 | 39380 | DIELORIN UG/L | | 0.010 < | 1.000 | | |
| 0000001 | 011 | 39390 | ENDRIN UG/L | | 0.010 < | 0.200 | | |
| 0000001 | 012 | 39398 | ETHION UG/L | | 0.050 < | | | |
| 0000001 | 013 | 39400 | TOXAPHENE UG/L | | 1.000 < | 5.000 | | |
| 0000001 | 014 | 39410 | HEPTACHLOR UG/L | | 0.010 < | 0.100 | | |
| 0000001 | 015 | 39420 | HEPTACHLOR EPOXIDE UG/L | | 0.010 < | 0.100 | | |
| 0000001 | 016 | 39480 | METHOXYCHLOR UG/L | | 0.050 < | 100.000 | | |
| 0000001 | 017 | 39516 | TOTAL PCB'S UG/L | | 0.100 < | | | |
| 0000001 | 018 | 39530 | MALATHION UG/L | | 0.050 < | | | |
| 0000001 | 019 | 39570 | DIAZINON UG/L | | 0.050 < | | | |
| 0000001 | 020 | 39600 | METHYL PARATHION UG/L | | 0.050 < | | | |
| 0000001 | 021 | 39730 | 2,4-D UG/L | | 0.100 < | 10.000 | | |
| 0000001 | 022 | 39760 | SILVEX UG/L | | 0.050 < | 10.000 | | |
| 0000001 | 023 | 39810 | GAMMA CHLORDANE UG/L | | 0.010 < | | | |
| 0000001 | 024 | 81208 | DYFONATE UG/L | | 0.050 < | | | |
| 0000001 | 025 | 81403 | DURSBAN UG/L | | 0.050 < | | | |
| 0000001 | 026 | 82088 | TERBUFOS (COUNTER) UG/L | | 0.050 < | | | |
| 0000001 | 027 | 00010 | WATER TEMPERATURE DEG C | | 11.500 | | | |
| 0000001 | 028 | 00059 | FLOW (PUMPING) RATE GAL/MIN | | 270.000 | | | |
| 0000001 | 029 | 00090 | OXIDATION-REDUCTION POTENTIAL (EH) MILLIVOLTS | | 122.000- | | | |
| 0000001 | 030 | 00400 | PH PH UNITS | | 7.200 | | | |
| 0000001 | 031 | 72004 | FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN | | 140.000 | | | |
| 0000001 | 032 | 90410 | | | 532.000 | | | |

SAMPLE NO: B605435 LOCATION: WELL #3 COLL DATE: 04/18/86 DELIVERED BY:
SMPL TYPE: RAW COLLECTOR: NO NAME LAB RCVD: 05/28/86 RECEIVED BY:
SMPL PURP: 1-ROUTINE COMMENTS: LAB COMPL: LAB SUPERVISOR:
SMPL PROG: I-GWN INORG OBSRVATNS: SMPL PERIOD: 04/86 FUND CODE:

| ANALYSIS ID | RSLT NO | STORET NO | DESCRIPTION | UNITS | RESULT | STANDARDS DRINK WTR | STANDARDS RAW WTR | TRIGGER LEVEL |
|---|---|---|---|---|---|---|---|---|
| | | 00095 | CONDUCTIVITY(EC)-LAB(UMHOS/CM @ 25 C | | 780.000 | | | |
| | | 00403 | PH LABORATORY UNITS | | 7.600 | | | |
| | | 00410 | ALKALINITY,TOTAL MG/L AS CACO3 | | 399.000 | | | |
| | | 00610 | NITROGEN,AMMONIA TOTAL MG/L AS N | | 4.900 | | | |

FACILITY: 1050450 FORREST *** CONTINUED ***

| | | | | | | |
|---|---|---|---|---|---|---|
| 418WN00 | 013 | 39356 | METOLACHLOR (DUAL) UG/L | UG/L | 0.100 | < |
| 418WN00 | 014 | 81757 | CYANAZINE UG/L | UG/L | 0.050 | < |

SAMPLE NO: 0757240 LOCATION: FORREST #3 COLL DATE: 07/01/87 DELIVERED BY:
SMPL TYPE: RAW COLLECTOR: BORING LAB RCVD: 07/01/88 RECEIVED BY:
SMPL PURP: 5-SPEC/OTHR COMMENTS: LAB COMPL: LAB SUPERVISOR:
SMPL PROG: 0-GWM PEST OBSRVATNS: SMPL PERIOD: 07/88 FUND CODE: PW

| ANALYSIS ID | RSLT NO | STORET NO | DESCRIPTION | UNITS | RESULT | | STANDARDS DRINK WTR | STANDARDS RAW WTR | TRIGGE LEVEL |
|---|---|---|---|---|---|---|---|---|---|
| | | 39300 | P,P'-DDT UG/L | | 0.010 | < | | | |
| | | 39305 | O,P'-DDT UG/L | | 0.010 | < | | | |
| | | 39310 | P,P'-DDD UG/L | | 0.010 | < | | | |
| | | 39315 | O,P'-DDD UG/L | | 0.010 | < | | | |
| | | 39320 | P,P'-DDE UG/L | | 0.010 | < | | | |
| | | 39327 | O,P'-DDE UG/L | | 0.010 | < | | | |
| | | 39330 | ALDRIN UG/L | | 0.010 | < | 1.000 | | |
| | | 39340 | LINDANE UG/L | | 0.010 | < | 4.000 | | |
| | | 39348 | ALPHA-CHLORDANE UG/L | | 0.010 | < | | | |
| | | 39356 | METOLACHLOR (DUAL) UG/L | | 0.100 | < | | | |
| | | 39357 | RONNEL UG/L | | 0.050 | < | | | |
| | | 39370 | TOTAL DDT UG/L | | 0.000 | | 50.000 | | |
| | | 39380 | DIELDRIN UG/L | | 0.010 | < | 1.000 | | |
| | | 39390 | ENDRIN UG/L | | 0.010 | < | 0.200 | | |
| | | 39398 | ETHION UG/L | | 0.050 | < | | | |
| | | 39400 | TOXAPHENE UG/L | | 1.000 | < | 5.000 | | |
| | | 39410 | HEPTACHLOR UG/L | | 0.010 | < | 0.100 | | |
| | | 39422 | HEPTACHLOR EPOXIDE UG/L | | 0.010 | < | 0.100 | | |
| | | 39480 | METHOXYCHLOR UG/L | | 0.050 | < | 100.000 | | |
| | | 39516 | TOTAL PCB'S UG/L | | 0.010 | < | | | |
| | | 39530 | MALATHION UG/L | | 0.050 | < | | | |
| | | 39570 | DIAZINON UG/L | | 0.050 | < | | | |
| | | 39600 | METHYL PARATHION UG/L | | 0.050 | < | | | |
| | | 39630 | ATRAZINE (AATREX) UG/L | | 0.050 | < | | | |
| | | 39730 | 2,4-D UG/L | | 0.100 | < | 10.000 | | |
| | | 39760 | SILVEX UG/L | | 0.500 | < | 10.000 | | |
| | | 39810 | GAMMA-CHLORDANE UG/L | | 0.013 | | | | |
| | | 46313 | PHORATE UG/L | | 0.050 | < | | | |
| | | 72037 | PUMPING RATE GPM | | 270.000 | | | | |
| | | 77825 | ALACHLOR UG/L | | 0.020 | < | | | |
| | | 81234 | TREFLAN UG/L | | 0.010 | < | | | |
| | | 81294 | DYFONATE UG/L | | 0.050 | < | | | |
| | | 81403 | DURSBAN UG/L | | 0.050 | < | | | |
| | | 81757 | CYANAZINE UG/L | | 0.500 | < | | | |
| | | 82080 | TERBUFOS (COUNTER) UG/L | | 0.050 | < | | | |

SAMPLE NO: Z001903 LOCATION: WELL COLL DATE: 03/27/86 DELIVERED BY:
SMPL TYPE: RAW COLLECTOR: IEPA SMPL COLLECTOR LAB RCVD: 00/00/00 RECEIVED BY:
SMPL PURP: 5-SPEC/OTHR COMMENTS: LAB COMPL: 00/00/00 LAB SUPERVISOR:

FACILITY: 1050450 FORREST *** CONTINUED ***

| | | | | | | |
|---|---|---|---|---|---|---|
| 0000001 | 010 | 00945 | SULFATE,TOTAL MG/L AS SO4 | 10.000 | < | |
| 0000001 | 011 | 00951 | FLUORIDE,TOTAL MG/L AS F | 0.360 | | 4.000 |
| 0000001 | 012 | 00956 | SILICA,TOTAL MG/L AS SIO2 | 19.000 | | |
| 0000001 | 013 | 00956 | SILICA,TOTAL MG/L AS SIO2 | 8.800 | | |
| 0000001 | 014 | 01002 | ARSENIC,TOTAR RECOVERABLE UG/L AS AS | 1.000 | < | 50.000 |
| 0000001 | 015 | 01007 | BARIUM,TOTAL RECOVERABLE UG/L AS BA ANAL BY ICP | 297.000 | | 1000.000 |
| 0000001 | 016 | 01012 | BERYLLIUM,TOTAL RECOVERABLE UG/L AS BE ANAL BY ICP | 0.500 | < | |
| 0000001 | 017 | 01022 | BORON,TOTAL RECOVERABLE UG/L AS B ANAL BY ICP | 294.000 | | |
| 0000001 | 018 | 01027 | CADMIUM,TOTAL RECOVERABLE UG/L AS CD ANAL BY ICB | 3.000 | < | 10.000 |
| 0000001 | 019 | 01034 | CHROMIUM,TOTAL RECOVERABLE UG/L ASCR ANAL BY ICB | 5.000 | < | 50.000 |
| 0000001 | 020 | 01037 | COBALT,TOTAL RECOVERABLE UG/L AS CO ANAL BY ICP | 5.000 | < | |
| 0000001 | 021 | 01042 | COPPER,TOTAL RECOVERABLE UG/L AS CU ANAL BY ICP | 7.000 | | 5000.000 |
| 0000001 | 022 | 01045 | IRON,TOTAL RECOVERABLE, UG/L AS FEANAL BY ICP | 3525.000 | | 1000.000* |
| 0000001 | 023 | 01051 | LEAD,TOTAL RECOVERABLE UG/L AS PB | 5.000 | < | 50.000 |
| 0000001 | 024 | 01055 | MANGANESE,TOTAL RECOVERABLE UG/L AS MN ANAL BY ICP | 39.000 | | 150.000 |
| 0000001 | 025 | 01067 | NICKEL,TOTAL RECOVERABLE UG/L AS NI ANAL BY ICP | 5.000 | < | |
| 0000001 | 026 | 01077 | SILVER,TOTAL RECOVERABLE UG/L AS AG ANAL BY ICP | 3.000 | < | 50.000 |
| 0000001 | 027 | 01082 | STRONTIUM,TOTAL RECOVERABLE UG/L AS SR ANAL BY ICP | 753.000 | | |
| 0000001 | 028 | 01087 | VANADIUM,TOTAL RECOVERABLE UG/L ASV ANAL BY ICP | 5.000 | < | |
| 0000001 | 029 | 01092 | ZINC,TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP | 50.000 | < | 5000.000 |
| 0000001 | 030 | 01105 | ALUMINUM,TOTAL RECOVERABLE UG/L ASAL ANAL BY ICP | 50.000 | < | |
| 0000001 | 031 | 01147 | SELENIUM,TOTAL RECOVERABLE UG/L ASSE | 1.000 | < | 10.000 |
| 0000001 | 032 | 32730 | PHENOLS, TOTAL RECOVERABLE UG/L | 5.000 | < | |
| 0000001 | 033 | 70300 | RESIDUE,TOTAL FILTERABLE 0180 C,MG/L | 516.000 | | |
| 0000001 | 034 | 71900 | MERCURY,TOTAL UG/L AS HG | 0.010 | < | 2.000 |
| 0000001 | 035 | 00010 | WATER TEMPERATURE DEG C | 11.500 | | |
| 0000001 | 036 | 00059 | FLOW (PUMPING) RATE GAL/MIN | 270.000 | | |
| 0000001 | 037 | 00090 | OXIDATION-REDUCTION POTENTIAL (EH) MILLIVOLTS | 122.000- | | |
| 0000001 | 038 | 00400 | PH PH UNITS | 7.200 | | |
| 0000001 | 039 | 72004 | FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN | 140.000 | | |
| 0000001 | 040 | 90410 | | 532.000 | | |

SAMPLE NO: Z001901 LOCATION: WELL COLL DATE: 03/27/86 DELIVERED BY:
SMPL TYPE: RAW COLLECTOR: IEPA SMPL COLLECTOR LAB RCVD: 00/00/00 RECEIVED BY:
SMPL PURP: 5-SPEC/OTHR COMMENTS: LAB COMPL: 00/00/00 LAB SUPERVISOR:
SMPL PROG: V-VOC OBSRVATNS: SMPL PERIOD: 03/86 FUND CODE:

| ANALYSIS ID | RSLT NO | STORET NO | DESCRIPTION | UNITS | RESULT | STANDARDS DRINK WTR | STANDARDS RAW WTR | TRIGG LEVE |
|---|---|---|---|---|---|---|---|---|
| 0000001 | 001 | 32101 | BROMODICHLOROMETHANE UG/L CG/MS | | 1.000 < | | | |
| 0000001 | 002 | 32102 | CARBON TETRACHLORIDE UG/L CG/MS | | 1.000 < | 5.000 | | |
| 0000001 | 003 | 32103 | 1,2-DICHLOROETHANE UG/L | | 1.000 < | 5.000 | | |
| 0000001 | 004 | 32104 | BROMOFORM UG/L CG/MS | | 1.000 < | | | |
| 0000001 | 005 | 32105 | DIBROMOCHLOROMETHANE UG/L GC/MS | | 1.000 < | | | |
| 0000001 | 006 | 32106 | CHLOROFORM UG/L GC/MS | | 1.000 < | | | |
| 0000001 | 007 | 34010 | TOLUENE UG/L | | 1.000 < | | | |
| 0000001 | 008 | 34030 | BENZENE UG/L | | 1.000 < | 5.000 | | |
| 0000001 | 009 | 34301 | CHLOROBENZENE UG/L | | 1.000 < | | | |
| 0000001 | 010 | 34371 | ETHYLBENZENE UG/L | | 1.000 < | | | |

FACILITY: 1050450 FORREST *** CONTINUED ***

| | | | | |
|---|---|---|---|---|
| 00630 | NITRATE & NITRITE TOTAL MG/L AS N | 0.100 | < | 10.000 |
| 00720 | CYANIDE,TOTAL MG/L AS CN | 0.005 | < | 0.200 |
| 00900 | HARDNESS,EDTA MG/L AS CACO3 | 365.000 | | |
| 00916 | CALCIUM,TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP | 77.000 | | |
| 00927 | MAGNESIUM,TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP | 39.100 | | |
| 00929 | SODIUM,TOTAL RECOVERABLE MG/L AS NA ANAL BY ICP | 35.000 | | |
| 00937 | POTASSIUM,TOTAL RECOVERABLE MG/L AS K ANAL BY ICP | 1.900 | | |
| 00940 | CHLORIDE,TOTAL MG/L AS CL | 8.200 | | |
| 00945 | SULFATE,TOTAL MG/L AS SO4 | 42.000 | | |
| 00951 | FLUORIDE,TOTAL MG/L AS F | 0.340 | | 4.000 |
| 00956 | SILICA,TOTAL MG/L AS SIO2 | 15.000 | | |
| 01002 | ARSENIC,TOTAR RECOVERABLE UG/L AS AS | 1.000 | < | 50.000 |
| 01007 | BARIUM,TOTAL RECOVERABLE UG/L AS BA ANAL BY ICP | 231.000 | | 1000.000 |
| 01012 | BERYLLIUM,TOTAL RECOVERABLE UG/L AS BE ANAL BY ICP | 0.500 | < | |
| 01022 | BORON,TOTAL RECOVERABLE UG/L AS B ANAL BY ICP | 220.000 | | |
| 01027 | CADMIUM,TOTAL RECOVERABLE UG/L AS CD ANAL BY ICB | 3.000 | < | 10.000 |
| 01034 | CHROMIUM,TOTAL RECOVERABLE UG/L ASCR ANAL BY ICB | 5.000 | < | 50.000 |
| 01037 | COBALT,TOTAL RECOVERABLE UG/L AS CO ANAL BY ICP | 5.000 | < | |
| 01042 | COPPER,TOTAL RECOVERABLE UG/L AS CU ANAL BY ICP | 5.000 | < | 5000.000 |
| 01045 | IRON,TOTAL RECOVERABLE, UG/L AS FEANAL BY ICP | 2800.000 | | 1000.000* |
| 01051 | LEAD,TOTAL RECOVERABLE UG/L AS PB | 5.000 | < | 50.000 |
| 01055 | MANGANESE,TOTAL RECOVERABLE UG/L AS MN ANAL BY ICP | 36.000 | | 150.000 |
| 01067 | NICKEL,TOTAL RECOVERABLE UG/L AS NI ANAL BY ICP | 3.000 | < | |
| 01077 | SILVER,TOTAL RECOVERABLE UG/L AS AG ANAL BY ICP | 5.000 | < | 50.000 |
| 01082 | STRONTIUM,TOTAL RECOVERABLE UG/L AS SR ANAL BY ICP | 670.000 | | |
| 01087 | VANADIUM,TOTAL RECOVERABLE UG/L ASV ANAL BY ICP | 4.000 | < | |
| 01092 | ZINC,TOTAL RECOVERABLE UG/L AS ZN ANAL BY ICP | 63.000 | | 5000.000 |
| 01105 | ALUMINUM,TOTAL RECOVERABLE UG/L ASAL ANAL BY ICP | 5.000 | < | |
| 01147 | SELENIUM,TOTAL RECOVERABLE UG/L ASSE | 1.000 | < | 10.000 |
| 70300 | RESIDUE,TOTAL FILTERABLE @180 C,MG/L | 456.000 | | |
| 70304 | TOTAL DISSOLVED SOLIDS MG/L BY EC | 470.000 | | |
| 71900 | MERCURY,TOTAL UG/L AS HG | 0.010 | < | 2.000 |

SAMPLE NO: Z001902 LOCATION: WELL
SMPL TYPE: RAW COLLECTOR: IEPA SMPL COLLECTOR
SMPL PURP: 5-SPEC/OTHR COMMENTS:
SMPL PROG: I-GWM INORG OBSRVATNS:

COLL DATE: 03/27/86 DELIVERED BY:
LAB RCVD: 00/00/00 RECEIVED BY:
LAB COMPL: 00/00/00 LAB SUPERVISOR:
SMPL PERIOD: 03/86 FUND CODE:

| ANALYSIS ID | RSLT NO | STORET NO | DESCRIPTION | UNITS | RESULT | STANDARDS DRINK WTR | STANDARDS RAW WTR | TRIGGE LEVEL |
|---|---|---|---|---|---|---|---|---|
| 0000001 | 001 | 00610 | NITROGEN,AMMONIA TOTAL MG/L AS N | | 8.800 | | | |
| 0000001 | 002 | 00630 | NITRATE & NITRITE TOTAL MG/L AS N | | 0.100 < | 10.000 | | |
| 0000001 | 003 | 00665 | PHOSPHORUS, TOTAL MG/L AS P | | 0.520 | | | |
| 0000001 | 004 | 00720 | CYANIDE,TOTAL MG/L AS CN | | 0.010 < | 0.200 | | |
| 0000001 | 005 | 00916 | CALCIUM,TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP | | 82.000 | | | |
| 0000001 | 006 | 00927 | MAGNESIUM,TOTAL RECOVERABLE MG/L AS CA ANAL BY ICP | | 40.000 | | | |
| 0000001 | 007 | 00929 | SODIUM,TOTAL RECOVERABLE MG/L AS NA ANAL BY ICP | | 64.000 | | | |
| 0000001 | 008 | 00937 | POTASSIUM,TOTAL RECOVERABLE MG/L AS K ANAL BY ICP | | 2.400 | | | |
| 0000001 | 009 | 00940 | CHLORIDE,TOTAL MG/L AS CL | | 6.000 | | | |

FACILITY: 1050450 FORREST *** CONTINUED ***

| | | | | | | |
|---|---|---|---|---|---|---|
| 0000001 | 011 | 34423 | METHYLENE CHLORIDE UG/L | 1.000 | < | |
| 0000001 | 012 | 34475 | TETRACHLOROETHYLENE UG/L GC/MS | 1.000 | < | |
| 0000001 | 013 | 34496 | 1,1-DICHLOROETHANE UG/L GC/MS | 1.000 | < | |
| 0000001 | 014 | 34501 | 1,1-DICHLOROETHYLENE UG/L GC/MS | 1.000 | < | 7.000 |
| 0000001 | 015 | 34506 | 1,1,1-TRICHLOROETHANE UG/L GC/MS | 1.000 | < | 200.000 |
| 0000001 | 016 | 39180 | TRICHLOROETHYLENE UG/L | 1.000 | < | 5.000 |
| 0000001 | 017 | 00010 | WATER TEMPERATURE DEG C | 11.500 | | |
| 0000001 | 018 | 00059 | FLOW (PUMPING) RATE GAL/MIN | 270.000 | | |
| 0000001 | 019 | 00090 | OXIDATION-REDUCTION POTENTIAL (EH) MILLIVOLTS | 122.000- | | |
| 0000001 | 020 | 00400 | PH PH UNITS | 7.200 | | |
| 0000001 | 021 | 72004 | FLOW (PUMPING) TIME PRIOR TO SAMPLING MIN | 140.000 | | |
| 0000001 | 022 | 90410 | | 532.000 | | |